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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,477	09/29/2004	Hendrik Roelof Stapert	NL020267US	8077

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EXAMINER	
YI, STELLA KIM	

ART UNIT	PAPER NUMBER
1791	

MAIL DATE	DELIVERY MODE
08/18/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/509,477	STAPERT ET AL.	
	Examiner	Art Unit	
	Stella Yi	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 5-8, 11-14, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over SINGH et al. (5,204,126) and in further view of YAMANA et al. (5,804,674).

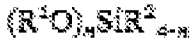
Regarding Claims 1, 6, 7, 12, and 13, SINGH et al. discloses a method of molding optical lenses comprising a plurality of mold components with molding surfaces together defining a molding cavity (Figure 4) wherein said mold is obtained by polymerizing film forming substances containing polymerizable moieties that are polymerized by heating (Col.3, lines 27-40). SINGH et al. teach that a mold internally shaped for casting optical lenses therein have internal surfaces coated with a film in accordance with the method of:

- providing a composition of polymerizable molecules;
- applying said composition to said mold surfaces; and
- leaving said composition on said surfaces for a sufficient period of time to allow a sufficient number of said molecules to migrate from said composition toward said surfaces and to spontaneously self-assemble in-situ on said

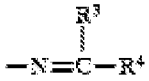
surfaces and attach themselves thereto to form a substantially continuous thin film thereon (Col.10, lines 50-66).

SINGH et al. is silent to the polymerizable compound being that of the compound in instant claim 1. However, YAMANA et al. discloses a mold release agent superior in a release performance for various molding materials giving a long mold release life and improves surface finishing properties of a molded article (Col.2, lines 28-32). The said mold release agent comprises a polymerizable compound containing:

A) a silane compound represented by the general formula:

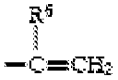


wherein R1 is a hydrocarbon group or a halogenated hydrocarbon group, or



(each of R3 and R4 is a hydrocarbon group having 1 to 4 carbon atoms),

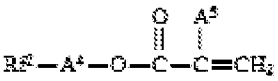
(R5 is a hydrocarbon group having 1 to 4 carbon atoms) or



(R6 is a hydrocarbon group having 1 to 4 carbon atoms);

R2 is hydrocarbon group or halogenated hydrocarbon group having 1 to 4 carbon atoms; and n is 3 or 4 (Col.2, lines 39-51) (represents Y and/or Z polymerisable groups of instant claims); and

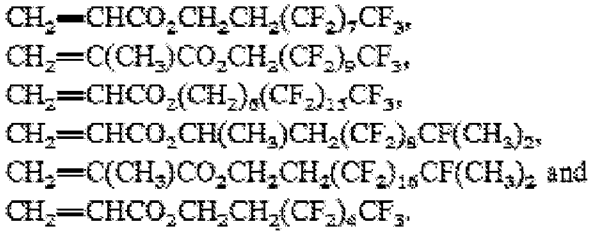
B) a fluorine-containing compound having at least two hydroxyl groups or alkoxyl groups in one molecule. It may be represented by the formula:



Wherein Rf2 is a perfluoroalkyl group having 6 to 21 carbon atoms;

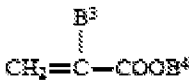
A4 is an alkylene group having 1 to 6 carbon atoms; and

A5 is a hydrogen atom or a methyl group (Col.6, lines 57-66). Specific examples of compound B) are



(Col.7, lines 22-29) (represents X as a polymerisable group of instant claims); and

C) a polymer of a perfluoroalkyl group-containing (meth) acrylate ester (Col.2, lines 66-67) represented by the formula:



Wherein each of B1 and B3 is a hydrogen atom, a fluorine atom or a methyl group (Col.8, lines 25-27) (represents Y or Z polymerisable groups of instant claims).

Furthermore, YAMANA et al. teach that the said release agent is applied to an internal surface of a mold; curing the mold release agent to form a cured film in the mold wherein curing is formed by heat (Col.10, lines 1-22); charging a molding composition in

the mold: molding the molding composition to a molded article; and demolding the molded article from the mold (Col.22, lines 17-22).

SINGH et al. discloses a need for a mold surface with ultra thin film that remains on the substrate surface and provides excellent abrasion resistance along with excellent release properties (Col.3, lines 17-20). YAMANA et al. provides a release agent that is formed into a cured film that is superior in a release performance for various molding materials giving a long mold release life and improves surface finishing properties of a molded article (Col.2, lines 28-32). Therefore, it would have been obvious to one of ordinary skill in the art to have modified the method of molding optical lenses wherein said mold is obtained by polymerizing film forming substances containing polymerizable moieties of SINGH et al. to include the particular release agent comprising the polymerizable moieties groups A, B, and C of YAMANA et al. to prevent abrasion on molded articles and provide excellent release of the molded articles from the mold.

Regarding Claims 2, 8, and 14, YAMANA et al. discloses said polymerizable groups comprises butyl vinyl ether, vinyl acetate, and (meth)acrylate (Col.7, lines 52-55).

Regarding Claims 5, 11, and 17, YAMANA et al. discloses that the weight ratio of the silane compound (A) to the flourine-containing compound (B) is from 2/98 to 30/70 in order to obtain a good crosslinked film for superior mold releasability (Col.9, lines 25-30).

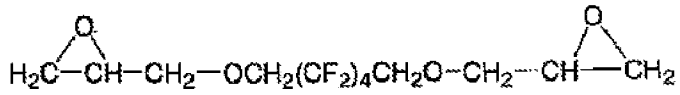
Regarding Claim 18, SINGH et al. discloses the shape of the mold to be aspherical and is made of said polymerisable material (See Figure 4 and Col.3, lines

27-40) but is silent to an aspect ratio of the layer thickness. However, it would have been a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the aspect ratio of the layer thickness was significant.

3. Claims 3, 10, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over SINGH et al. (5,204,126) in view of YAMANA et al. (5,804,674) as applied to claims 1, 2, 5-8, 11-14, and 17-18 above, and in further view of NAKAKIMURA et al. (JP 10-190245).

The teachings of SINGH et al. and YAMANA et al. are applied as described above for claims 1, 2, 5-8, 11-14, and 17-18.

Regarding Claims 3, 10, and 16, modified SINGH et al. does not explicitly disclose the starting material as 2,2'-(2,2,3,3,4,4,5,5-octafluoro 1,6-hexanyloxymethyl) diepoxide. However, NAKAKIMURA et al. discloses in Formula 5:



which is the starting material of the claimed invention comprising glycidylether groups used for optical lenses. It would have been obvious to one of ordinary skill in the art to have incorporated the said starting material of NAKAKIMURA et al. for the method of molding optical lenses of modified SINGH et al. for the purpose of fabricating an optical device from a material known in the art to be suited for optical applications.

4. Claims 4, 9, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over over SINGH et al. (5,204,126) in view of YAMANA et al. (5,804,674) as applied to claims 1, 2, 5-8, 11-14, and 17-18 above, and in further view of TAKAHASHI ("Improvement of Photo Cured Composite Resin Using Low Viscosity Monomer Substituted by Fluorine" by Journal of the Japanese Society for Dental Materials and Devices).

The teachings of SINGH et al. and YAMANA et al. are applied as described above for claims 1, 2, 5-8, 11-14, and 17-18.

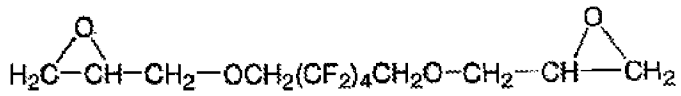
Regarding Claims 4, 9, and 15, modified SINGH et al. does not explicitly disclose the starting material as 2,2,3,3,4,4,5,5-octafluoro 1,6-hexanediol-dimethacrylate. However, TAKAHASHI discloses a photocurable fluorinated monomer FHDDMA (2,2,3,3,4,4,5,5-octafluoro 1,6-hexanediol-dimethacrylate) (Abstract). It would have been obvious to one of ordinary skill in the art to have incorporated the photocurable polymerizable monomer of TAKAHASHI for the organic material of modified SINGH et al. for the purpose of curing the polymerizable material of modified SINGH et al.

5. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over SINGH et al. (5,204,126) and in further view of NAKAKIMURA et al. (JP 10-190245).

Regarding Claims 19 and 20, SINGH et al. discloses a method of molding optical lenses comprising a plurality of mold components with molding surfaces together defining a molding cavity that is spherical (see Figures 3 and 4) wherein said mold is obtained by polymerizing film forming substances containing polymerizable moieties

that are polymerized by heating or cured by exposure to an ultraviolet light source after applying it to the substrate surfaces (Col.6, lines 30-33). Polymerization is completed in less than one minute (Col.6, lines 39-40) and once the film has formed and is attached to the substrate surface, the excess composition is removed (Col.6, lines 42-44).

SINGH et al. does not explicitly disclose the starting material as 2,2'-(2,2,3,3,4,4,5,5-octafluoro 1,6-hexanyloxymethyl) diepoxide. However, NAKAKIMURA et al. discloses in Formula 5:



which is the starting material of the claimed invention comprising glycidylether groups used for optical lenses. It would have been obvious to one of ordinary skill in the art to have incorporated the said starting material of NAKAKIMURA et al. for the method of molding optical lenses of modified SINGH et al. for the purpose of fabricating an optical device from a material known in the art to be suited for optical applications.

Regarding Claim 20, SINGH et al. discloses the said film can be reused as a release coating to cast not less than 10 lenses and preferably more than 20 lenses (overlaps claimed range of at least 100 lenses) before renewal of the release coating is necessary. Thus, the film minimizes the amount of cleaning necessary before the old can be reused, and the release coating does not have to be renewed after each lens is cast (Col.8, lines 61-68).

Response to Arguments

6. Applicant's arguments filed June 9, 2010 have been fully considered but they are not persuasive.

Applicant Argues:

a) Reconsideration and withdrawal of at least the additional requirement of election of species is respectfully requested.

b) Yamana et al. does not cure the deficiencies of the primary reference, and, it is submitted, is not properly combined therewith in view of the primary reference disclosure that to be effective in the reference method, the sole material that forms the film must consist essentially of amphiphilic molecules which migrate to the surface and bond therewith. Yamana et al. is contrary to this requirement.

c) The Examiner's assertion of predictability flies in the face of the failure of those skilled in the art to achieve similar results with various compounds, and appears to be based on impermissible hindsight and the use of applicant's disclosure against him.

Examiner respectfully disagrees with the Applicant's above arguments and would like to point out the reason(s) as discussed in the rejection:

a) The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, the species are not obvious variants of each other based on the current record.

There is an examination and search burden for the patentably distinct species due to their mutually exclusive characteristics. The species require a different field of

search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Therefore, the request for withdrawal of the requirement of the election of species is denied.

b) In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007).

Applicant is correct that primary reference Singh et al. discloses that the film composition is made of polymerizable amphiphilic molecules. However, Singh et al. further discloses that the method of molding optical lenses is not limited to only a polymerizable composition comprising amphiphilic molecules but that other types of film forming substances and coating compositions may be used in the invention of molding optical lenses (Col.1, lines 15-18). Furthermore, SINGH et al. discloses a need for a mold surface with ultra thin film that remains on the substrate surface and provides excellent abrasion resistance along with excellent release properties (Col.3, lines 17-

20). YAMANA et al. discloses that in related art, fatty acids (amphiphilic molecules) have been used as mold release agents but have poor release life and properties. YAMANA et al. provides a release agent that is formed into a cured film that is superior in a release performance for various molding materials giving a long mold release life and improves surface finishing properties of a molded article (Col.2, lines 28-32). In addition, YAMANA et al. discloses that reapplication of the mold release agent is not necessary. Therefore, it would have been obvious to one of ordinary skill in the art to have modified the method of molding optical lenses wherein said mold is obtained by polymerizing film forming substances containing polymerizable moieties of SINGH et al. to include the particular release agent comprising the polymerizable moieties groups A, B, and C of YAMANA et al. to prevent abrasion on molded articles and provide excellent release of the molded articles from the mold.

c) In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stella Yi whose telephone number is 571-270-5123. The examiner can normally be reached on Monday - Thursday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SY

/Jeff Wollschlager/
Primary Examiner, Art Unit 1791